

ABSTRACT

A soft tissue expander has enhanced performance through use of differential and directional expandability, continuous expansion capability, increased base and dimensional stability, increased soft tissue purchase by virtue of unique surface topography, and results in improved cavity contour after expansion. Expansion means may be provided to expand the implant in a desired direction. In the preferred embodiment, an expander or implant has an exterior surface defining a volume, the exterior surface including a base portion, a first wall and a second wall, wherein the second wall is relatively thinner than the first wall. A fill port, which may be integrally molded into the expander, is included. As the expander is inflated, differential expansion occurs with the relatively thin second wall section expanding more than that of the first wall section. The base may include ribs or other molded-in structures to increase structural integrity. Optionally, a bellows may be included on the exterior surface of the expander, the bellows optionally including a limiting ring. Molded-in geometric patterns may be employed to present textured internal, as well as external surfaces to the implant or expander. Compressive structures may be used on the inside or outside surface of the implant.